

Patent Claims

1. A particle for producing a three-dimensional object by means of layer-building processes, containing

- a core of at least a first material
- a first coating of the core with a second material, the second material being polar, characterized in that a second coating comprising a surfactant is applied to the first coating.

2. The particle as claimed in claim 1, characterized in that the thickness of the second coating corresponds to a monolayer of the surfactant.

3. A process for producing a three-dimensional object, including the following steps:

- applying a layer of particles to a target surface,
- irradiating a selected part of the layer, corresponding to a cross-section of the object, with an energy beam, so that the particles are joined in the selected part,
- repeating the application and irradiation steps for a plurality of layers, so that the joined parts of the adjacent layers are joined together in order to form the object, characterized
- in that particles to whose outer surface a surfactant has been applied are used.

4. A process for producing a three-dimensional object, including the following steps:

- applying a layer of particles to a target surface,

- printing a liquid in which at least parts of the particles are soluble onto a selected part of the layer, corresponding to a cross-section of the object, so that the particles are joined in the selected part,
- repeating the application and printing steps for a plurality of layers, so that the joined parts of the adjacent layers are joined together in order to form the object, characterized
- in that particles to whose outer surface a surfactant has been applied are used.

5. The process as claimed in claim 3 or 4, characterized in that particles according to claim 1 or 2 are used.

6. An object formed from joined-together particles, characterized in that it is obtained from particles according to claim 1 or 2 or using a process according to one of claims 3 to 5.